REMARKS

With the present amendments, Claims 1, 4, and 7 remain pending, while claims 2, 3, 5, 6 and 8-9 are canceled without prejudice to the prosecution of the canceled subject matter in related continuation or divisional applications. The amendments to claims 1, 4, and 7 find support in the specification and claims as originally filed. For example, support for the amendments to claims 1, 4, and 7 may be found in Example 3 at page 8, line 4; page 8, lines 22-end; and elsewhere in the application and claims as filed.

No new matter is added by the amendments.

The Examiner acknowledges receipt of papers submitted under 35 U.S.C. §§ 119(a) - 119(d).

Claims 1, 2, 4 and 5 stand rejected under 35 U.S.C. §102(a) as allegedly anticipated by Miyakawa et al. (*Blood* **100**: 601a; hereafter "Miyakawa"). Claims 1, 3, 4, 6, 7, and 9 stand rejected under 35 U.S.C. §102(e) as allegedly anticipated by U.S. Patent Application No. 2003/0182671 by Ito et al. (hereafter "Ito"). Claims 2, 5 and 8 stand rejected under 35 U.S.C. §103(a) as allegedly made obvious by Ito in view of Blase et al.

Applicants respectfully traverse these rejections.

The Priority Documents

Enclosed herewith is an English translation of the foreign priority documents. Also enclosed is a Declaration by the translator, Natsuo Tanaka, that the English translation of the priority document is, to the best of his ability, a true and correct translation into English of Japanese Patent Application Serial No. 322995/2002, filed on November 6, 2002. Applicants request that this English translation of the priority application, and the Declaration of the translator attesting that the translation is a true and correct translation into the English language, be made of record in this case.

Applicants believe that this English translation and Declaration of the translator fulfill the requirements of 37 C.F.R. § 1.55. Accordingly, Applicants submit that the present application is entitled to the earliest priority date of the foreign priority application, Japanese Patent Application Serial No. 322995/2002.

The Rejections under 35 U.S.C. §102(a)

Claims 1, 2, 4 and 5 stand rejected under 35 U.S.C. §102(a) as allegedly anticipated by Miyakawa. The Examiner provides an email message suggesting that the cited reference was available on November 9, 2002. However, even if this reference date were correct, the reference is not a *prior art* reference, since the present application is entitled to a priority date of November 6, 2002. Accordingly, Applicants believe the rejection of claims 1, 2, 4 and 5 under 35 U.S.C. § 102(a) to be overcome.

The Rejections under 35 U.S.C. §102(e)

Claims 1, 3, 4, 6, 7, and 9 stand rejected under 35 U.S.C. §102(e) as allegedly anticipated by Ito.

Anticipation under 35 U.S.C. § 102 requires that "every element of the claimed invention be identically shown in a single reference." (*In re Bond*, 910 F.2d 831,832 (Fed. Cir. 1990). Under 35 U.S.C. § 102(a), "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Anticipation under 35 U.S.C. § 102(e) further requires that a reference that is an international application filed under a treaty defined in section 351(a) be published "in the English language." Applicants note that Ito claims priority from a PCT application (PCT/JP01/09401) that was filed in the Japanese language; this PCT application claimed priority to a Japanese application (JP 2000-367296) also in the Japanese language. The PCT application was published in Japanese as WO 02/43477. Accordingly, since the cited reference claims priority to an international application that

was not published in the English language, Applicants submit that Ito is not a prior art reference under 35 U.S.C. 102(e).

Furthermore, Applicants note that the present claims are directed to a mouse model of human multiple myeloma comprising engrafted human multiple myeloma U266 cells. Ito nowhere discusses such a mouse model, nor screening methods utilizing such a mouse model. Thus, even if Ito were a prior art reference under 35 U.S.C. § 102(e), Ito fails to anticipate the claimed invention. Accordingly, Applicants submit that the rejections of claims 1, 3, 4, 6, 7, and 9 under 35 U.S.C. §102(e) are overcome.

The Rejections under 35 U.S.C. §103(a)

Claims 2, 5 and 8 stand rejected under 35 U.S.C. §103(a) as allegedly made obvious by Ito in view of Blase et al.

In order to establish a prima facie case of obviousness, there must be 1) some suggestion or motivation in the art or in the knowledge generally available to one of ordinary skill in the art, to modify or to combine the reference teachings; 2) there must be a reasonable expectation of success; and 3) the prior art references must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be found in the prior art, and not based on the applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

However, as noted above, Ito fails to discuss engraftment of U266 cells and fails to discuss a human multiple myeloma model mouse. Although Blase discusses engraftment of U266 cells to a CB-17 scid/scid mouse, Blase notes that "All animals innoculated with NALM-6 and BJAB accepted the graft, while grafting was less efficient for the other lines. Indeed, only 1 out of 4 animals receiving U266 developed a tumor." (page 861, right column, lines 35-38). Moreover, the U266 cells in the one animal in which they were able to be engrafted failed to disseminate from the site of injection (page 861, right column, lines 57-58; page 863, right column, lines 64-65). Blase thus

teaches that U266 cells are not readily grafted, and that even if engrafted, U266 cells do not invade and disseminate the host animal. Blase thus teaches away from the present invention. Moreover, the references do not provide a multiple myeloma model. There is no teaching or suggestion that engrafted U266 cells could disseminate into the bone marrow of a host animal. Thus there is no suggestion and no motivation in the references or in the art to combine these references to provide the claimed invention, and, even if combined, the cited references fail to provide the claimed invention.

In contrast, Applicants show, in Example 3, that U266 cells were successfully engrafted into all five NOG mice tested, while engraftment of U266 cells into C.B-17/Icr-scid mice was unsuccessful (see, e.g., Table 2, page 8). Thus, the present results confirm the poor results of Blase with the strain of mouse used by Blase, while further providing surprisingly successful results with U266 cells in the NOG mouse. Thus, the present inventors provide unexpected results with their discovery that engraftment of U266 cells into the NOG mouse provides a model of human multiple myeloma.

Furthermore, as described in Example 3 of the present specification, in the NOG mice into which U266 cells were engrafted infiltration of U266 cells into bone marrow was observed, as were osteolytic lesions as well (see, e.g.,Figures 2 and 3). These results were not observed in the C.B-17/Icr-scid mouse (see, e.g., Table 2, page 8). Applicants thus provide these unexpected results which show that the NOG mouse can be a disease model for multiple myeloma. Applicants here show that the NOG mouse engrafted with U266 cells provides a good model for human multiple myeloma. Thus, while the prior art did not suggest, and in fact, taught away from the present invention, the data shown in the present application clearly shows that the NOG mouse has significant advantages and may be engrafted with U266 cells to produce a human multiple myeloma model mouse.

Accordingly, applicants respectfully submit that the rejection of claims 2, 5 and 8 under 35 US.C. § 103(a) is overcome.

CONCLUSION

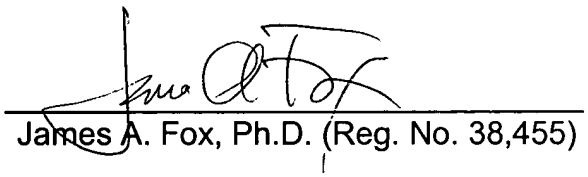
Applicants believe that all claims are in form for allowance, and the reconsideration and allowance of all claims is respectfully requested.

The Examiner is invited to contact the undersigned attorney at the telephone number indicated below should he find that there are any further issues outstanding.

Please charge any fees, including fees for three months extension of time, and any other fees that may be due, or credit overpayment to Deposit Account No. **08-1641** referencing Attorney's Docket No. **38331-0006**.

Respectfully submitted,

Dated: May 30, 2006

By: 

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